

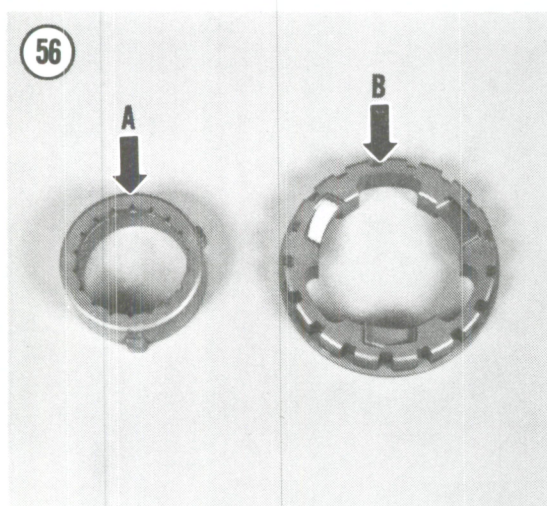
8. On 90-125 cc clutch models, inspect the splines of the clutch outer housing (A, **Figure 57**). If it show signs of wear or damage they should be replaced. This is a 2-part assembly; if disassembly is necessary, remove the circlip (B, **Figure 57**) and separate the 2 parts.

9. On 90-125 cc models, inspect the centrifugal weights on the drive plate (**Figure 39**). They must move freely or be replaced.

CLUTCH RELEASE MECHANISM

The clutch release mechanism is located within the right-hand crankcase cover (**Figure 58**).

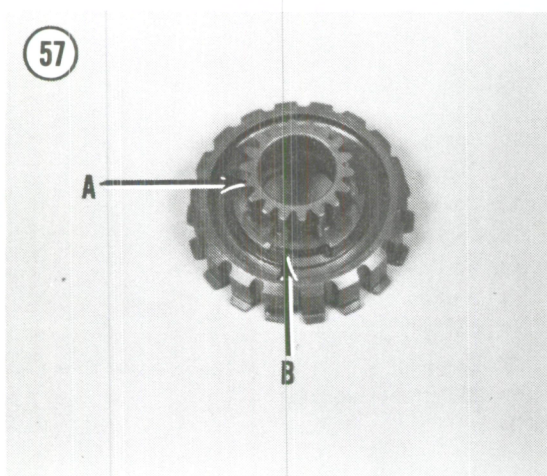
1. Drain the engine oil as described in Chapter Three.
2. Remove the bolts securing the right-hand crankcase cover and remove the cover and the gasket. Don't lose the locating dowels.
3. From the exterior of the crankcase cover, remove the locknut and washer from the adjuster screw.
4. Within the right-hand crankcase cover, remove the adjuster screw and the O-ring seal.
5. Install by reversing these removal steps, noting the following.
6. Refill the engine with the recommended type and quantity of engine oil; refer to Chapter Three.
7. Adjust the clutch as described in Chapter Three.



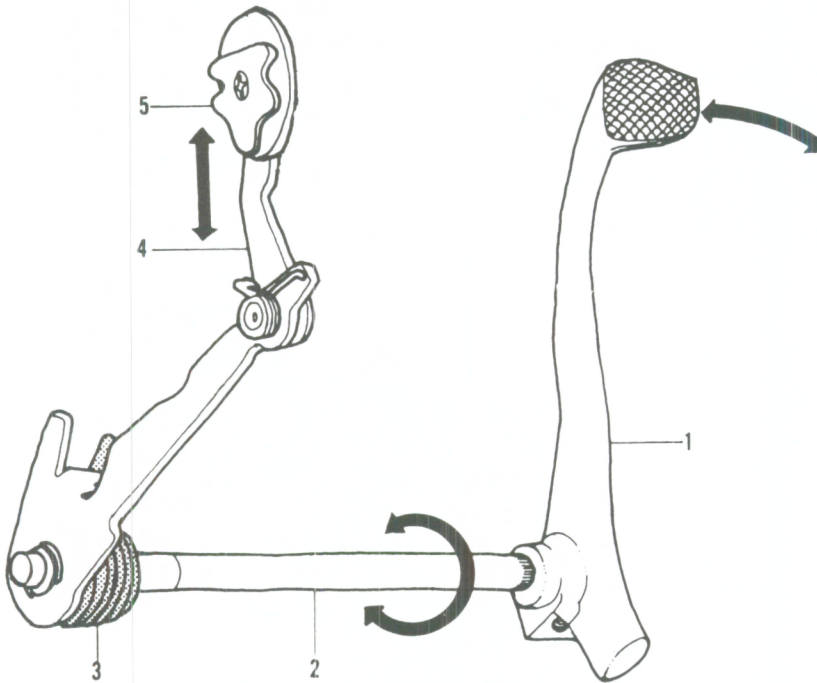
EXTERNAL SHIFT MECHANISM

The external shift mechanism is located on the right-hand side of the engine, under the crankcase cover and next to the clutch assembly. The mechanism can be removed with the engine in the frame. To remove the shift drum and shift forks it is necessary to remove the engine and split the crankcase. This procedure is covered under *Shift Drum and Shift Forks* in this chapter.

The gearshift lever is subject to a lot of abuse. If the ATC has hit a large rock or other obstruction, the gearshift lever may have been hit and the shift shaft bent. It is very hard to straighten the shaft without subjecting the crankcase to abnormal stress where the shaft enters the case. If the shaft is bent enough to prevent it from being withdrawn from the crankcase, there is little recourse but to cut the shaft off with a hacksaw very close to the crankcase. It is much cheaper in the long run to replace the shaft than risk damaging a very expensive crankcase.



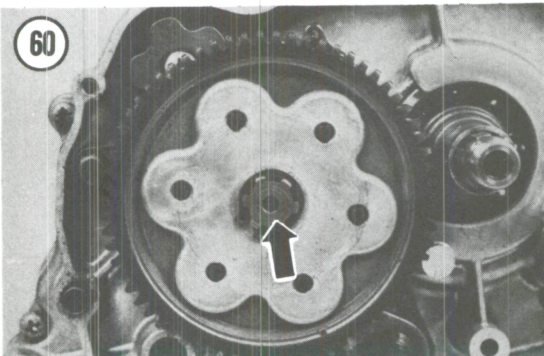
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EXTERNAL SHIFT MECHANISM

1. Gearshift lever
2. Gearshift spindle
3. Return spring
4. Gearshift arm
5. Shift drum stopper plate

5

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**Removal**

Refer to **Figure 59** for this procedure.

1. Place the ATC on level ground and set the parking brake or block the wheels so the vehicle will not roll in either direction.
2. Drain the engine oil as described in Chapter Three.
3. Remove the clutch assembly as described in this chapter.
4. Remove the circlip (**Figure 60**) securing the primary driven gear. Slide the primary driven gear off of the transmission main shaft.

5. Remove the bolt securing the gear shift lever (Figure 61) on the left-hand side and remove the gearshift lever.

6. Loosen the bolt securing the stopper arm. Unhook the return spring from the arm (Figure 62) and let the arm pivot down out of the way.

NOTE

See the introduction to this procedure if the assembly is difficult to remove.

7. Disengage the gearshift lever portion of the lever from the shift drum (Figure 63) and withdraw the gearshift spindle assembly.

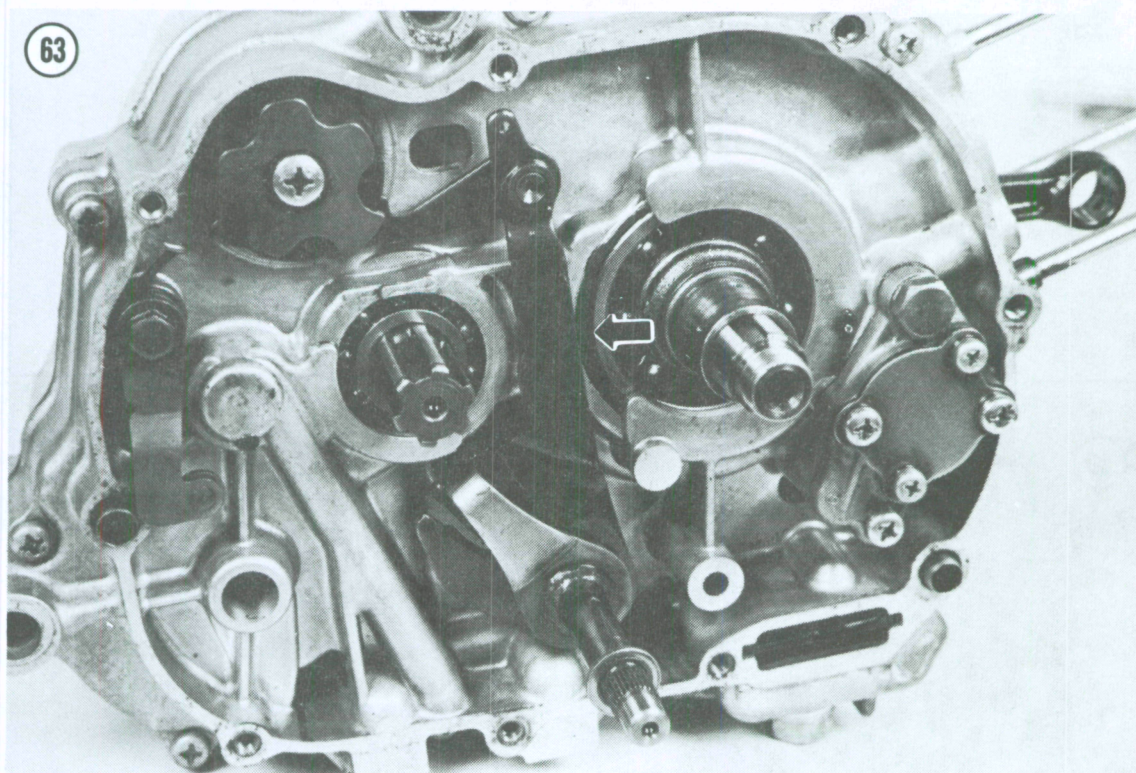
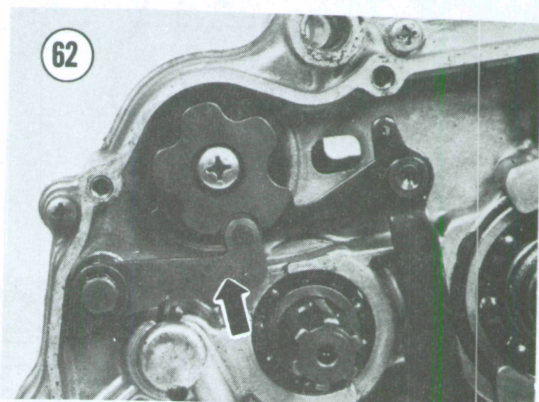
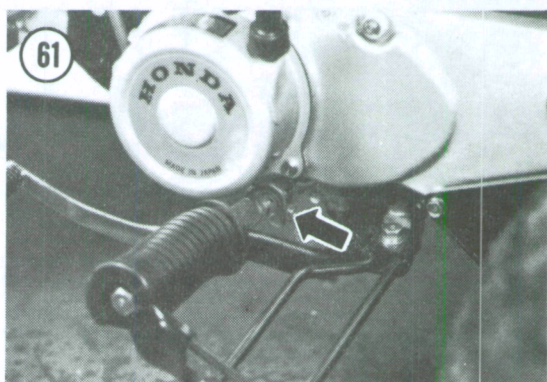
8. Remove the screw (Figure 64) securing the stopper plate to the shift drum and remove the stopper plate. Don't lose the loose pins on the shift drum.

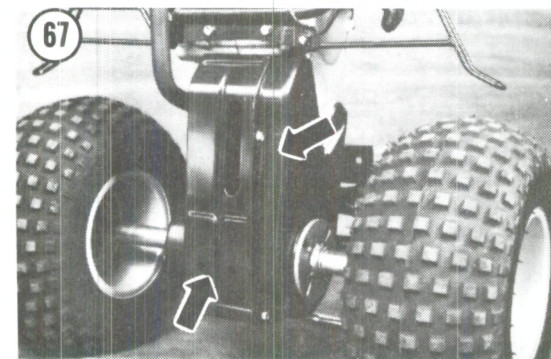
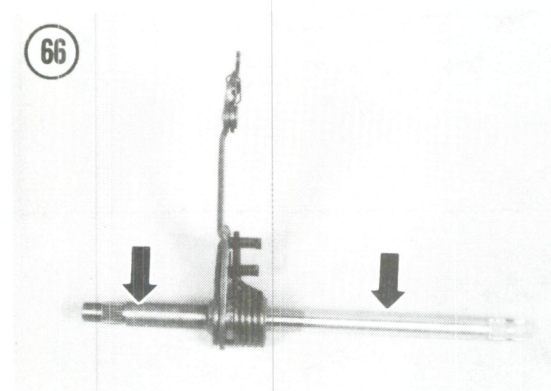
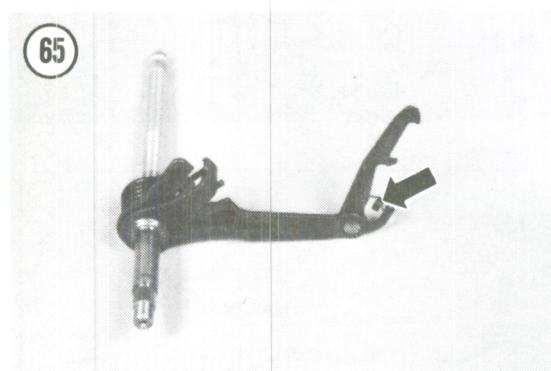
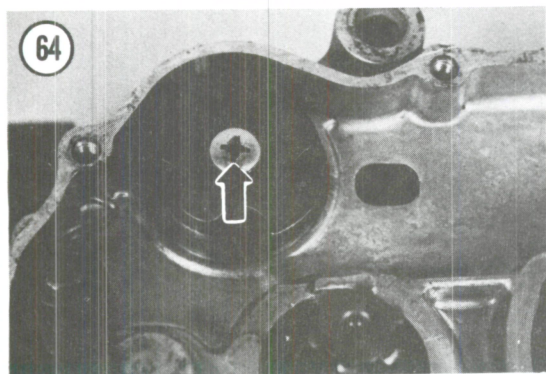
Inspection

1. Inspect the return springs on the gearshift spindle assembly (Figure 65). If broken or weak they must be replaced.

2. Inspect the gearshift lever assembly shaft (Figure 66) for bending, wear or other damage; replace if necessary.

3. Inspect the ramps on the stopper plate. They must be smooth and free of burrs or cracks. Replace if necessary.





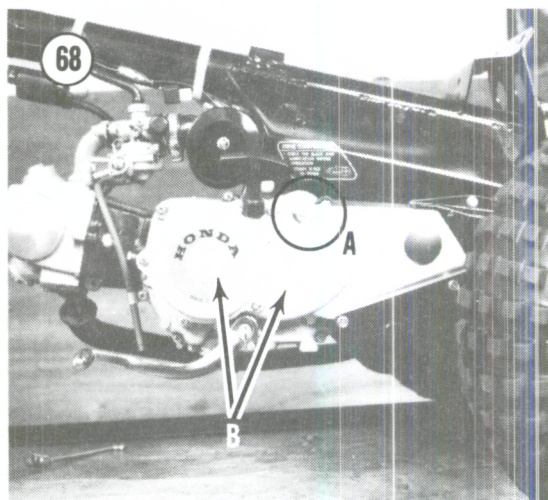
Installation

1. Make sure all the pins are installed in the shift drum.
2. Install the gearshift spindle assembly. Make sure the return spring is correctly positioned onto the stopper pin in the crankcase.
3. Engage the gearshift lever portion of the lever into the shift drum pins.
4. Align the recess in the back of the stopper plate with the long pin in the shift drum. Install the stopper plate and tighten the bolt securely.
5. Correctly position the return spring onto the stopper arm. Move the stopper arm into position and tighten the stopper arm bolt securely.
6. Install the primary driven gear onto the transmission main shaft. From the other side of the engine, push on the main shaft and install the circlip. The main shaft must be pushed on slightly so that the circlip will seat correctly into the groove in the main shaft.
7. Install the clutch assembly as described in this chapter.
8. Refill the engine with the correct type and quantity of oil; refer to Chapter Three.
9. Adjust the clutch as described in Chapter Three.

DRIVE SPROCKET

Removal/Installation (70 cc)

1. Place the ATC on level ground.
2. Remove the seat/rear fender assembly.
3. Remove the bolts securing the under plate and the chain cover (Figure 67).
4. Shift the transmission into NEUTRAL and remove the E-clip and the neutral indicator (A, Figure 68).



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